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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/732,085	12/06/2000	Daniel J. Miller	MS1-642US	3091

22801 7590 10/19/2004

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EXAMINER

TRUONG, LECHI

ART UNIT PAPER NUMBER

2126

DATE MAILED: 10/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/732,085

Applicant(s)

SD

Examiner

LeChi Truong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 04/12/2004 6) ☐ Other:

DETAILED ACTION

1. Claims 1-33 are presented for the examination.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 11, 13, 20 and 29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- a. The following terms lack proper antecedent basis:

- (i) The processing chains – claim 13;
- (ii) The active project – claim 29;

- b. The claim language in the following claims is not clearly understood:

- (i) As to claims 11 and 20, they are unclear whether these are dependent or independent claims. Claims 1 and 12 are method claims. However, claims 11 and 20 are storage medium claims that depend on the method claims.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims **1-22 and 26-33** are rejected under 35 U.S.C. 103(a) as being unpatentable over Amini et al (US. Patent 6,581,102 B1) in view of Zenchelsky et al (6,173,364 B1).

4. **As to claim 1**, Amini teaches the invention substantially as claimed including: one or more processing chains (stream processing modules, col 4, ln 46-54), a development project (controller application, col 4, ln 61-64), a series of filters (filters, col 3, ln 20-22/ col 4, ln 48-50), a render media content (media data, col 4, ln 50-51), loading one or more source processing chains to support execution of a development project (col 6, ln 20-26), and

determining whether each of the one or more processing chains will be subsequently required during execution of this or another development project (col 6, ln 27-33).

5. Amini does not explicit teach caching those filter chains. However, Zenchelsky teaches caching those filter chains (the 5-tuple is then added to the cache as a part of a session entry called a session key. The drop action is stored as the action corresponding to the session key, col 4, ln 49-54/ abstract, line 8-12/ col 9, ln 27-31 and ln 37-40).

6. It would have been obvious to one of the ordinary skill in the art at the time the invention was made to combine the teaching of Amini and Zenchelsky because Zenchelsky's caching those filter chains would provides an efficient way to implement the rules of a dynamic rule without having to search the entire rule base for each packet.

7. **As to claim 2**, Zenchelsky teaches identifying which sources will be required to support execution of the next M seconds of the development project (col 3, ln 59-62), searching one or more caches to determine whether the source processing chains associated with the source are

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available within the one or more caches (col 4, ln 40-45/ col 7, ln 29-32), retrieving the one or more processing chains from a memory location denoted by an associated one or more pointer in cache (col 8, ln 10-17/ Fig. 4).

8. **As to claim 3**, Zenchelsky teaches determining whether processing chains retrieved from the caches satisfy processing requirements of the development project (col 4, ln 45-44), modifying one of more objects of one or more of the processing chains retrieved from the caches that do not satisfy the processing requirements of the development project (col 5, ln 22-26).

9. **As to claim 4**, Zenchelsky teaches modifying one or more processing object to the processing chains (col 4, ln 54-58).

10. **As to claim 5**, Amini teaches M is at least as long as necessary to construct a processing chain (col 4, ln 39-44/col 7, ln 4-8).

11. **As to claim 6**, Zenchelsky teaches determining whether any future calls to a source coupled to the processing chain exist within this development projects and determining whether any future calls to a source coupled to the processing chain may be received during execution of future development projects (col 3, ln 57-62).

12. **As to claim 7**, Zenchelsky teaches assumed that each processing chain may well be required to support future execution of this or a future development project (col 3, ln 60-62).

13. **As to claim 8**, Zenchelsky teaches assigning the processing chain a unique identifier (col 5, ln 1-3), storing the unique identifier along with a pointer to a memory location occupied by the processing chain in a cache (col 9, ln 8-25).

14. **As to claim 9**, Zenchelsky teaches the unique identifier is one or more of a source file handle, a source file name, and a random numeric identifier uniquely (col 8, ln 23-26/ Fig. 4).

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15. As to claim 10, it is an apparatus claim of claim 1; therefore, it is rejected for the same reason as claim 1 above.

16. As to claim 11, it is an apparatus claim of claim 1; therefore, it is rejected for the same reason as claim 1 above. In additional, Amini teaches the plurality of executable instruction (col 4, ln 46-48).

17. As to claim 12, it is an apparatus claim of claim 1; therefore, it is rejected for the same reason as claim 1 above. In additional, Amini teaches caching the source chain when it is not current required in the development project (col 4, ln 37-46). The rule of filter was cached before the packet is applied; thus the rules of filters are not currently required before the packet is applied.

18. As to claim 13, Amini teaches the processing chains are cached only if it will subsequently be required in the development project (col 9, ln 27-30 and ln 35-40).

19. As to claims 14 and 15, they are apparatus claims of claims 8 and 9; therefore, they are rejected for the same reasons as claims 8 and 9 above.

20. As to claim 16, Zenchelsky teaches identifying a need for a source processing chain, retrieving a suitable processing chain from a cache of such processing chain (col 10, ln 54-64).

21. As to claim 17, Amini teaches intergrading the retrieved processing chain into the development project (col 6, ln 19-25).

22. As to claims 18, 19, 20 and 21, they are apparatus claims of claims 3, 5, 10 and 11; therefore, they are rejected for the same reasons as claims 3, 5, 10 and 11 above.

23. As to claim 22, Amini teaches a plurality of source (processing modules, col 4, ln 44-50), an interface (the graph manager 210, col 6, ln 20-23/ Fig. 2), a development project (a controller

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application, col 4, ln 61-64), processing chains (filters, col 5, ln 54-57), an interface, selectively couple to the plurality of source, to generate and implement a development project of processing chains (col 6, ln 20-25), wherein the interface loads a processing chain for each of the plurality of media source at a point during the execution of the project when the chain is required(col 6, ln 19-26/ col 7, ln 2-10), a series filters to process and render media content(col 6, ln 30-35).

24. As to claim 26, Zenchelsky teaches identifies one or more currently loaded chains that will not be used during next N seconds to upload (col 5, ln 10-12).

25. As to claims 27 and 28, they are apparatus claims of claims 13 and 14; therefore, they are rejected for the same reasons as claims 13 and 14 above.

26. As to claim 29, Zenchelsky teaches removes the identifies chains from the active project and caches the removed chains (col 9, ln 24-30 and ln 36-40).

27. As to claim 30, Zenchelsky teaches the interface loading processing chains (col 9, ln 26-30), by first searching caches of processing chains for suitable match (col 10, ln 54-63).

28. As to claims 31, 32, 33, they are apparatus claims of claims 16,17, 18 and 19; therefore, they are rejected for the same reasons as claims 16, 17, 18 and 19 above.

29. Claims 23-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Amini et al (US. Patent 6,581,102 B1) in view of Zenchelsky et al (6,173,364 B1) and further in view of Lewis et al (US. Patent 6,255,943 B1).

30. As to claim 23, Amni and Zenchelsky do not teach loads those chains required if a current chain-count does not exceed a threshold. However, Lewis teaches loads those chains

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required if a current chain-count does not exceed a threshold (determining the load distributed policy based on a busyness of at least one of the network management servers, col 17, ln 54-57).

32. It would have been obvious to one of the ordinary skill in the art at the time the invention was made to combine the teaching of Amni, Zenchelsky and Lewis because Lewis's loads those chains required if a current chain-count does not exceed a threshold would increase performance and reliability of passing object from a server to a client application.

31. As to claim 24, Lewis teaches M is less than a time required to load a processing chain (col 10, ln 19-21).

32. As to claim 25, Lewis teaches the interface identifies one or more currently loaded chains that can be unloaded (col 6, ln 60-63).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LeChi Truong whose telephone number is (571) 272 3767. The examiner can normally be reached on 8 - 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIP. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIP system, contact the Electronic Business Center (EBC) at 866-217-9197(toll-free).

LeChi Truong

October 13, 2004


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